Important Advances in Clinical Medicine

Epitomes of Progress—Allergy

The Scientific Board of the California Medical Association presents the following inventory of items of progress in allergy. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in allergy which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Allergy of the California Medical Association and the summaries were prepared under its direction.

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Allergic Bronchopulmonary Aspergillosis

FIRST DESCRIBED IN 1952, allergic bronchopulmonary aspergillosis is being recognized with increasing frequency. The disease results from a hypersensitivity reaction to antigens derived from Aspergillus fungi which colonize the bronchial tree without tissue invasion.

The primary diagnostic criteria for this syndrome include (1) episodic bronchial obstruction (asthma), (2) peripheral blood eosinophilia, (3) immediate-type skin reactivity to Aspergillus antigens, (4) serum precipitating antibodies against Aspergillus antigens, (5) elevated serum IgE, (6) history of fixed or transient pulmonary infiltrates and (7) central bronchiectasis. Secondary diagnostic criteria include (1) the finding of Aspergillus in sputum or bronchial washings, (2) history of expectoration of brown plugs and (3) Arthus-type skin reactivity to Aspergillus antigens. Pathologically, allergic bronchopulmonary aspergillosis may show features of microgranulomatosis, mucoid impaction of bronchi, eosinophilic pneumonitis, bronchocentric granulomatosis or combinations thereof.

The disease should be considered in the differential diagnosis of any patient with asthma, eosinophilia and pulmonary infiltrates. There are no pathognomonic diagnostic criteria but the presence of the first six primary criteria determines the diagnosis with reasonable certainty. Proximal bronchiectasis tends to confirm the diagnosis although it may be absent early in the course of the disease.

In addition to morbidity from acute episodes, failure to make the diagnosis results in irreversible complications which include pulmonary fibrosis and bronchiectasis. The treatment for acute episodes and presumably for prevention of complications is administration of corticosteroids, though there are presently no established guidelines for optimal dosage or duration of therapy.

In addition to clinical findings, the serum IgE level may reflect disease activity, falling with appropriate treatment and rising before clinical relapse. As suggested by the immunologic findings in this disease, the immunopathogenesis probably involves both IgE-mediated or Arthus reaction and immune-complex mechanisms. The possible additional role of cell-mediated immunity remains to be clarified.

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